

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>IP 14373</b>	<b>FOR FURTHER ACTION</b> <small>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</small>	
International application No. <b>PCT/GB 99/ 00119</b>	International filing date (day/month/year) <b>14/01/1999</b>	(Earliest) Priority Date (day/month/year) <b>15/01/1998</b>
Applicant  <b>AMORNTATKUL, Noppadol et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

5

☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

/GB 99/00119

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 6 B21J5/08 B21F5/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 B21J B21F E04C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 653 809 A (TECHNIPORT SA) 3 May 1991  see page 4, line 14 - page 5, line 23; figures 1,4	1-11, 13-16, 20-27
X	DE 197 19 578 A (DAVUM CONSTRUCTION S A) 2 January 1998  see column 2, line 17 - line 29; claim 1; figures	1-6, 14-16, 20,26
A	GB 2 286 782 A (CCL SYSTEMS LTD) 30 August 1995 see claim 1	1,15



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

11 May 1999

Date of mailing of the international search report

25/05/1999

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/00119

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 017, no. 443 (M-1463), 16 August 1993 & JP 05 098741 A (TOKYO TEKKO KK; OTHERS: 01), 20 April 1993 see abstract -----	1-11, 13-16, 20, 26
A	US 5 660 594 A (VILJAKAINEN KARI) 26 August 1997 -----	

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

GB 99/00119

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
FR 2653809	A	03-05-1991	NONE		
DE 19719578	A	02-01-1998	NONE		
GB 2286782	A	30-08-1995	AU	693850 B	09-07-1998
			AU	1668495 A	04-09-1995
			CA	2183446 A	24-08-1995
			EP	0745011 A	04-12-1996
			WO	9522422 A	24-08-1995
			JP	9508858 T	09-09-1997
			NZ	279527 A	26-02-1998
			US	5776001 A	07-07-1998
US 5660594	A	26-08-1997	AT	178236 T	15-04-1999
			AU	4072493 A	30-12-1993
			DE	69324277 D	06-05-1999
			EP	0739256 A	30-10-1996
			FI	930479 A	02-12-1993
			WO	9324257 A	09-12-1993
			RU	2100128 C	27-12-1997